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PLEASE PASS TO ECON OFFICER SHANE PETERSEN AND CRAIG CONWAY

E.O. 12958: DECL: 03/31/2018

TAGS: [CH](#) [ETTC](#) [GM](#) [KNNP](#) [KSCA](#) [MTCRE](#) [PARM](#) [PREL](#)

SUBJECT: (S) RESPONSE TO GERMAN INQUIRY ON U.S. LICENSING  
PRACTICES FOR CARBON FIBER TECHNOLOGY TRANSFERS TO CHINA

REF: BERLIN 00341

Classified By: ISN/CATR: WMALZAHN

[1](#)1. (U) This is an action request. Please see paragraph 3.

[1](#)2. (S) BACKGROUND: Per Reftel, German authorities are considering the export to China of technology used to produce carbon fiber and have requested information on USG licensing practices for such a transfer. In particular, the FRG asked if U.S. authorities have reviewed similar license requests and how the USG counters the risk of diversion of related technology and its improper end-use to include any special conditions the USG may impose on such licenses. Additionally, the FRG asked how the USG would assess whether the equivalent quality of U.S. carbon fiber production technology is available in China. German officials have indicated they would like a response to their queries no later than March 31. Guidance for responding to the FRG is provided in paragraph 3. END BACKGROUND

[1](#)3. (U) Action Request: Drawing on the talking points in paragraph 4, request Embassy Berlin approach appropriate host government officials to deliver the talking points in Paragraph 4 and report response. Please note that equation numbers in parenthesis are exponents, i.e. ten squared is written as 10(2). Talking points may be left as a non-paper.

[1](#)4. (S) Begin talking points/non-paper:

(SECRET//REL GERMANY)

-- In the spirit of our nonproliferation partnership, we would like to respond to Germany's request for information on USG licensing practices for the transfer to Chinese entities of technology used for the production of carbon fiber and USG licensing history regarding this and/or similar transfers.

-- A complete answer to your question -- which we would be pleased to provide -- would require that we receive a more specific description of the production technology, the particular stated end-use, and the identity of the Chinese end-user in question. Correlating information on the item, stated end-use, and stated end-user is of central importance in making export control decisions. In the absence of that information, we can provide only a general response. This response is also limited to transfers of controlled technology and does not cover production equipment.

-- Two multilateral export control regimes provide guidelines for the control of carbon fibers. The Wassenaar Arrangement controls carbon fibrous or filamentary materials in paragraph 1.C.10 that have a specific modulus exceeding  $12.7 \times 10(6)$  m and a specific tensile strength exceeding  $23.4 \times 10(4)$  m. Technology for the development, production or use of material described in 1.C.10 is controlled in paragraph 1.E.1.

-- The Nuclear Suppliers Group (NSG) controls carbon fibrous

or filamentary materials in paragraph 2.C.7 that have a specific modulus of  $12.7 \times 10(6)$  m or greater or a specific tensile strength of  $23.5 \times 10(4)$  m or greater. Technology for the development, production or use of material described in 2.C.7 is controlled in paragraph 2.E.1 of the NSG Annex.

-- The United States has incorporated these guidelines into the Export Administration Regulations (EAR) that govern the export of dual use items. Specifications for the Wassenaar controlled carbon fibrous or filamentary materials are described in Export Commodity Classification Number (ECCN) 1C010.b with the development and production technology described in ECCN 1E001. This development and production technology is controlled for both national security and nuclear proliferation reasons. A license is required to export this technology to China, and the license review policy is contained in u742.3 and u742.4 of the EAR. Specifications for the NSG-controlled carbon fibrous or filamentary materials are contained in ECCN 1C210.a with the development and production technology described in ECCN 1E001. This development and production technology is controlled for nuclear proliferation reasons. A license is required to export the technology to China, and the license review policy is contained in u742.3 of the EAR. Since China is the destination, the review provisions of u742.4(b)(7) also apply.

-- For the People's Republic of China (PRC), there is a general policy of approval for license applications to export, reexport, or transfer items to civilian end-uses. There is a presumption of denial for license applications to export, reexport, or transfer items that would make a direct and significant contribution to the PRC's military capabilities such as, but not limited to, the major systems described in Supplement No. 7 to Part 742 of the EAR. These systems include Battle Tanks; Armored Combat Vehicles; Large-Caliber Artillery Systems; Combat Aircraft; Attack Helicopters; Warships; Missiles and Missile Launchers; Offensive Space Weapons; Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR) Systems; Precision Guided Munitions (PGMs) including smart bombs; and Night Vision equipment.

-- The United States also controls carbon fibrous or filamentary materials, not described by 1C010 or 1C210, for use in composite structures and with a specific modulus of  $3.18 \times 10(6)$  m or greater and a specific tensile strength of  $7.62 \times 10(4)$  m or greater under unilateral controls described in ECCN 1C990 with the development and production technology described in ECCN 1E994. A license is not required for the export of this technology to China unless the end user is considered a military end user and the material is other than glass, aramid, or polyethylene. Military end use means incorporation into military items described on the U.S. Munitions List (USML) or incorporation into a military item described on the Wassenaar Arrangement Munitions List.

-- The USG has not received any official request for guidance on the requirements for exporting development and production technology for the manufacture of carbon fibrous or filamentary materials to China. The United States has not received a license application for the export of 1E001 or 1E994 development or production technology for the manufacture of carbon fibrous or filamentary materials to China.

-- Were the USG to receive a license application for such technology, it would receive considerable review. First, the material produced by the technology would be evaluated for its physical properties and the likelihood of its use by the military. The end user of the technology would also be closely reviewed to determine if there are any relationships with the Chinese military or producers of military items. If the intended use of the carbon fibrous or filamentary materials produced by the technology is for any of the major military systems described above, the application would be immediately denied. If the stated end use on a license

application were for a nonmilitary use then further review of the ultimate users of the material would be conducted to evaluate any relationships with the Chinese military. A technology control plan would be required from the end user that establishes procedures to ensure that only USG authorized individuals would have access to the technology. Prior to any approval of such a license, the United States may require a prelicense inspection of the facility to review their procedures to control the technology and to verify the bona fides of the recipient of the technology. Were a license to be approved, the United States may require detailed reporting on the volume of material produced and identification of the ultimate receiver of that material. The United States may also require periodic on-site review of the implementation of the technology control plan, the production reports, and the implementation of any unique conditions placed on the license to ensure appropriate control of the technology.

-- To the best of our knowledge, China does not currently possess equivalent advanced carbon fiber development or production technology. The United States would not authorize the export of such technology to either a non-U.S. subsidiary or a U.S. subsidiary company in China without extensive review of the transaction to include the bona fides of the company and considerable controls on the distribution of the technology as well as independent verification of those controls by the U.S. Government.

-- The United States views the potential for diversion of development and production technology for advanced carbon fibrous or filamentary materials to be of great concern. Approval of any U.S. regulated technology for the development and production of advanced carbon fibrous or filamentary materials for export to any entity in China would occur only after considerable and careful review of all the facts of the proposed transaction.

-- We hope you will be able to use this information in conjunction with Germany's export controls in conducting your risk assessment of the licenses you currently have under consideration, and that you will take all appropriate measures to halt any attempts by Chinese entities to acquire equipment or technology from German sources that could be used to advance Chinese missile development efforts.

-- We appreciate your consulting with us on this issue and look forward to continued close cooperation on nonproliferation issues.

End talking points/non-paper.

15. (U) Please contact ISN/CATR, Juan Santos with any questions or follow-up related to this case (202-647-1747 - santosju@state.gov or santosju@state.sgov.gov) and slug reporting on this issue for ISN/CATR, ISN/NESS, ISN/MTR, EUR/AGS and EUR/PRA.

16. (U) A word version of this document will be posted at [www.state.sgov.gov/demarche](http://www.state.sgov.gov/demarche).  
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End Cable Text